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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,050	03/06/2000	VICTOR CHRISTOU	SHP-PT050	9402

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EXAMINER

WELLS, LAUREN Q

ART UNIT PAPER NUMBER

1617

DATE MAILED: 02/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/445,050

Applicant(s)

CHRISTOU, VICTOR

Examiner

Lauren Q Wells

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-46 is/are pending in the application.
- 4a) Of the above claim(s) 27-33 and 36-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-26 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claims 34-46 are pending. The Amendment received June 27, 2001 cancelled claims 1-23 and added claims 24-46. Claims 27-33, 36-46 are withdrawn from consideration, as they are directed to non-elected subject matter.

Specification

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Lack of Unity

Applicant argues that claim 24 and claims 25-44 are all appropriately grouped as category II claims, as the inventive concept is maintained within all these claims. The Examiner respectfully points out that a special technical feature is required for unity of invention. The organometallic complex of formula (I) of the instant invention is not a special technical feature, as it is not distinguished over the prior art (see Seminara et al., Inorg. Chim. Acta). Hence, this lack of unity requirement is proper.

The Lack of Unity Requirement and election of species requirement are maintained and hereby made final.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 24, 25, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Seminara et al. (Inorg. Chim. Acta).

Seminara et al. teach the absorption and emission spectra of neodymium(III) and europium(III) complexes. Disclosed is a $\text{Ln}(\text{HBpz}_3)_3$ complex, wherein Ln is a lanthanide metal of Nd, Eu, or Ho, and HBpz₃ is hydrotris(pyrazol-1-yl)borate ion. In particular, the claim limitations are fulfilled when Z is HB, L is pz, M is a lanthanide metal ion, q is zero and p is three. See entire disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seminara et al. in view of Lawrence et al. (J. Chem. Soc. Dalton Trans).

Seminara et al. is applied as discussed above. The reference fails to exemplify both Tb as the lanthanide metal and CF₃SO₃ as a counterion. However, in the introduction Tb is disclosed as a lanthanide metal producing a strong fluorescence and CF₃SO₃ is disclosed as a counterion used in combination with lanthanide metal complexes.

Lawrence et al. teach new complexes of $[\text{Ln}\{\text{HB}(\text{pz})_3\}_2\text{L}]$, wherein pz is pyrazol-1-yl, Ln is Tb and L is salicylaldehyde. See entire disclosure.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the Tb of Lawrence for the Nd, Eu or Ho of Seminara because a)

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both references teach trispyrazoyl ligands covalently bound to boron hydride in conjunction with lanthanide metals; b) Tb, Nd, Eu and Ho are all lanthanide metals with a 3+ charge and Seminara teaches Tb as a metal that produces a strong fluorescence; c) Lawrence et al. teach Tb, Nd, Eu and Ho as interchangeable lanthanide metals in conjunction with trispyrazoyl ligands covalently bound to boron hydride; thus, the replacement of one for the other in an organometallic complex would be within the skill of one in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Lawrence to exemplify the organometallic complex of Seminara as further comprising a counterion of CF₃SO₃ because a) both references teach trispyrazoyl ligands covalently bound to boron hydride in conjunction with lanthanide metals; b) both references teach that counter ions can be in conjunction with organometallic complexes; c) Lawrence teaches that counter ions can be in conjunction with trispyrazoyl ligands covalently bound to boron hydride in conjunction with lanthanide metals, and Seminara teaches CF₃SO₃ as a counterion; hence, modifying the organometallic complex of Seminara by adding a counterion would be within the skill of one in the art.

The claimed subject matter fails to patentably distinguish over the state of the art as represented by the cited references. Therefore, the claims are properly rejected under 35 U.S.C. § 103.

Prior Art

The prior art made of record and not specifically relied upon in any rejections cited above is either 1) considered cumulative to the prior art that was cited in a rejection or is 2) considered pertinent to the applicant's disclosure and shows the state of the art in its field but is not determined by the Examiner to read upon the invention currently being prosecuted in this application.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is (703) 305-1878. The examiner can normally be reached on T-F (6-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minna Moezie can be reached on (703) 308-4612. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

lqw
February 5, 2002



**DAMERON L. JONES
PRIMARY EXAMINER**